

**OZONE REMOVAL SYSTEM AND METHOD FOR
LOW AND HIGH TEMPERATURE OPERATION**

ABSTRACT OF THE DISCLOSURE

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Apparatus, systems, and methods for the efficient decomposition of ozone in an air stream from an air intake of an aircraft. The apparatus includes a titania catalyst support on a substrate, and a catalyst composition on the titania. The catalyst composition comprises a silver-based component,
10 comprising silver metal or silver oxide, and a palladium-based component comprising an oxide of palladium or palladium metal. The air stream may be from a dedicated ambient air compressor or from bleed air from a gas turbine engine. The invention allows for the effective removal of ozone from the air stream to provide cleansed air having an ozone level of 0.1 ppm or less over a
15 range of operating temperatures from 100 to 500° F and above during a service period of at least 20,000 hours or a time period of not less than 5 years.